IT Plan – Agency Operations

Agency: Bank of North Dakota

Responsible Party:

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Technology Description:

BND's service areas utilize multiple applications to perform the business functions of the Bank. The attached listing describes these applications and includes information concerning the environment required to run each application.

Planned activities:

The technology activities for BND for the 2011-2013 biennium will focus on the maintenance of the current systems, applications, and associated hardware. These activities include: hardware and software replacement and upgrades; PC and laptop replacements; vulnerability and security assessments; maintenance and upgrades for audio and video systems; and disaster recovery testing and related processes.

Planned changes /updates to technology:

- *Windows XP will be retired during the desktop replacement cycle. Windows 7 will be deployed on new or replaced desktops.*
- *Application upgrades and patches will be installed or applied as released by the respective vendor*
- *Hardware replacements will be performed according to the established replacement cycles*

Technologies being watched or investigated:

- *Virtualization of servers*
- *Virtualization of desktop PCs*
- *Utilization of managed security services for proactive monitoring of business critical processes and hardware*

Bank of North Dakota - IT Asset Management Plan

Hardware
Hardware is obtained when a business need is identified. Hardware is maintained and replaced according to established replacement cycles. These cycles include:

- PC – desktop or laptop - 4 Year Replacement Cycle

- Monitor - 4 Year Replacement Cycle

- Printer - 4 Year Replacement Cycle

- Server - 3 Year Replacement Cycle

- Audio/Visual Equipment - Replace as failed or technology changes

Software
Software is obtained when a business need is identified. Software is retired when technologically obsolete or business needs have changed. Software is upgraded according to the following schedule:

- Microsoft Office - Upgrade every other release

- Core Business Software - Apply upgrades as released

- Development Software - Apply upgrades as released

- Other Software - Apply upgrades as requested or required by external needs

Human Capital
BND's information technology staff includes personnel assigned to development, application support, desktop and network support, and security. Appropriate staffing levels in each of these areas is regularly monitored and adjusted when business needs change or staff vacancies occur. Recruiting to fill vacant positions is performed through job postings as well as postings with the colleges and universities.

Retention of BND information technology staff is vital due to the high level of business knowledge required in order to support the service areas and their applications. Retention is accomplished through use of flexible schedules and an emphasis on continuous training and development. Individual training plans are developed for each of the information technology staff.

Consultants are used to supplement agency staff as well as to provide a skill set not available from internal staff. This includes independent vulnerability assessments, vendor assistance for the support and upgrade of business applications, and software development from the Information Technology Department (ITD).

System	Business Purpose	In-House/ Purchased	Development Language	Operating System	Database	File Structure	Vendor/ Internal	Interfaces	Est. Year Put in Service	Est. Year Life Expectancy
Administration										
Communications & Marketing										
Choices	Interactive career planning website	P	NA			NA	Bridges Transitions	NA		
Dreamweaver	Web design and development tool	P	NA	Windows		NA	Adobe	NA		
Policy Tester	Bobby replacement	P	NA	Windows	MS SQL	NA	IBM Rational	NA	2009	
Risk Management										
GuardDog & WatchDog	FinCEN and OFAC compliance software	P	NA	Windows		NA	Attus	PGS, ITI	2003	2015
LDRPS	ND State Risk Management DR website						ND State Risk Management			
OFAC										
Credit Review										
OnePoint & Stan	Tickler system for lending & provides statistics on loans	P	NA	Windows	MS SQL	NA	Baker Hill	ITI Loans		
Accounting/Treasury Services										
EFT PS	Electronic Funds Transfer	P	NA			NA		NA	1998	2015
Payroll - ITD PeopleSoft	Payroll processing application	P	NA			NA	Oracle	ITI	2003	2015
Bars	OMB budgeting software	P	NA		Oracle	NA	OMB	NA		
IPS Sendero - ALS		P	NA	Windows	Oracle	NA	IPS Sendero	ITI		
IPS Sendero - OPS	Organizational Profitability System	P	NA	Windows	Oracle	NA	IPS Sendero	ITI		
IPS Sendero - FTP	Funds Transfer Pricing	P	NA	Windows	Oracle	NA	IPS Sendero	ITI		
IPS Sendero - RPM	Relationship Profitability Manager	P	NA	Windows	MS SQL	NA	IPS Sendero	ITI		
IPS Sendero - Vantage	Budget tool and asset liability	P	NA	Windows		NA	IPS Sendero		2009	
ITI Call Reporter	Creates electronic regulatory report	P	NA	Windows	MS SQL	NA	Fiserv	NA		
ITI Accounts Payable	Accounts payable	P	NA	Windows	MS SQL	NA	Fiserv	NA	2009	
Bond Registrar	Application records and authenticates issued Bonds	I	Natural, COBOL/MVS	Linux		Adabas	Internal	NA	1990	2010
Fed Funds	Application that tracks overnight borrowings by banks	I	Natural, COBOL/MVS	Linux		Adabas	Internal	ITI, Director	1990	2010
Bond and Coupon	Debt obligation that pay interest payments	I	Natural, COBOL/MVS	Linux		Adabas	Internal	ITI, Director	1990	2010
PaceLoan	Pace buy down loan program	I	LOTUS NOTES			DataBase	Internal	ACH	1995	2015
Fed Funds	Credit line recommendations are generated	I	LOTUS NOTES			DataBase	Internal	NA	1998	2015
Tickler	System for organizing data so future tasks are reviewed	I	LOTUS NOTES			DataBase	Internal	NA	1998	2015
The Depository Trust & Clearing Corporation (DTCC)	Manage securities	P	NA	Windows		NA	DTCC	NA		
IPS Sendero - A/L	Asset Liability	P	NA	Windows	Oracle	NA	IPS - Sendero	ITI		
IPS Sendero - DMS	Data Management System	P	NA	Windows	Oracle	NA	IPS - Sendero	ITI		
SunGard	Bond Accounting and Safe Keeping ASP	P	NA			NA	SunGard	General Ledger, ITI		
Bloomberg	Provides current market information	P	NA	Windows		NA	Bloomberg	NA		
Connect Direct Select	file transfer program for SunGard	P	NA	Windows		NA	Sterling Commerce	Mainframe, AS400	2008	
JP Morgan Chase	website used to settle trades, pay principal & interest	P	NA			NA	JP Morgan Chase			
FedLine Advantage	Federal Reserve Connectivity	P	NA	Windows		NA	Federal Reserve Bank	NA		
Banking Services										
ACH (automated clearing house)	Direct deposit	P	COBOL/MVS	os390		VSAM,QSAM	PEP+	ITI	1992	2010
Metavante Vision IP	Check processing	P	None(object code only)	Windows	Proprietary	NA	Metavante	Mainframe	2005	2015
Metavante Vision Content	COLD/image retrieval for Image Vision	P	None(object code only)	Windows	MS SQL	NA	Metavante	NA	2005	2015
Metavante xVision	Electronic image processing into Image Vision	P	None(object code only)	Windows	MS SQL	NA	Metavante	Tumbleweed	2005	2015

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Metavante Fraud	Fraud detection	P	None(object code only)	Windows	MS SQL	NA	Metavante	ITI	2009	
Metavante Positive Pay	Pay or no pay decision software	P	None(object code only)	Windows	MS SQL	NA	Metavante	State Agencies, ITI	2010	2015
Metavante Returns	Electronic returns image processing	P	None(object code only)	Windows	Proprietary	NA	Metavante	Mainframe	2009	
Metavante Opera	Converts checks to ACH file format	P	None(object code only)	Windows		NA	Metavante	ACH		
Metavante Statements	Prints customer statements	P	None(object code only)	Windows		NA	Metavante	NA		
Metavante Direct Merchant	External customer can capture/process check images	P	None(object code only)	Windows	MS SQL	NA	Metavante			
Metavante Duplicate Detection		P	NA	Windows		NA	Metavante		2009?	
Vault Inventory	Manage physical items in the vault	I	COBOL/MVS	os390		Adabas	Internal	Director	1990	2010
PayPlus	Wires application	P	NA	Windows	MS SQL	NA	Fundtech	NA	1998	2015
Cash Management	Ecorp application	ASP	NA	Windows	?	NA	Fundtech	Connect3	2009	2019
Websphere MQ	Wires application	P	NA	Windows		NA	IBM	Federal Reserve	2008	
Fixed Assets	Fixed Asset inventory/accounting applications	P	NA	Windows	MS SQL	NA	Sage	NA	1998	2015
Bond Pro	US Bonds software	P	NA	Windows		NA	US Treasury	NA	1998	2015
FedLine Advantage	Federal Reserve Connectivity	P	NA	Windows		NA	Federal Reserve Bank	NA		
Deluxe	On-line Deluxe check ordering software	P	NA	Windows		NA	Deluxe	ITI		
Pitney Bowes	Mail sorting postage savings software	P	NA	Windows	MS Access	NA	Pitney Bowes	Mainframe		
ITI Platform/Expedite	ITI new DDA account software	P	NA	Windows		NA	Fiserv	NA		
ITI Insight	ITI teller software	P	NA	Windows		NA	Fiserv	NA		
ITI Ecorp	ITI external customer cash management system	P	NA	Windows	MS SQL	NA	Fiserv	Director, Web Director		
ITI Ecomm	ITI online banking	P	NA	Windows	MS SQL	NA	Fiserv	Director		
Tokens	ITI Multi-factor authentication	P	NA	Windows	?	NA	Fiserv	NA		
Rimmage	Create CD of customer statements	P	NA	Windows	?	NA	Fiserv	NA		
Account Analysis		I	COBOL/MVS	os390		NA	Internal	NA		
Lending Services										
Laser Pro Lending	Loan documentation	P	NA	Windows		NA	Harland Financial Solutions	NA	1998	2015
Pipeline Loan Tracking System	External bank interface to BND for home loans	I	Java	Linux		Visual Studio .net	Internal	NA	2004	2010
Secretary of State - ND Central Notice System	Lien Searches and Financing Statements	P	NA	Windows		NA	Secretary of State	Mainframe		
HMDA	HUD software	P	NA	Windows		NA		NA		
Tvalue	Amortization software	P	NA	Windows		NA	Time Value	NA		
ITI Collections	Residential real estate software	P	NA	Windows	MS SQL	NA	Fiserv	Director		
RE Online payments	Software utility used for Real Estate online payments	I	JAVA	Linux		DB400	Internal	ACH, CORE	2007	2015
Gate City Payment process	Sofware utility used to process electronic payment file	I	JAVA	Linux		DB400	Internal	ACH, CORE	2008	2015
Escrow payment process	Software utility used to generate electronic escrow payment file	I	Java	Linux		DB400	Internal	Cass and Morton Cty	2008	2015
Student Loans										
Advanced Loans System	Lender Servicing System	P	COBOL/MVS(API/RPI)	os390		VSAM,QSAM	Alltel Information Services	General Ledger, ACH, PGS, KO, ITI, Metaviewer	1993	2010
Customer Service Management	Used to record customer contact	P	COBOL/MVS	os390		VSAM,QSAM	Alltel Information Services	NA	1993	2010
Architecture - Parm's	Controls lender application processing	P	COBOL/MVS	os390		VSAM,QSAM	Alltel Information Services	NA	1993	2010
Intersystem Transfer	Used to record customer contact	P	COBOL/MVS	os390		VSAM,QSAM	Alltel Information Services	NA	1993	2010
Online Collections	Lender collection processing	P	COBOL/MVS	os390		VSAM,QSAM	Alltel Information Services	ALS	1993	2010
EdConnect	Data Transfer to the Department of Education (DOE)	P	NA	Windows		NA	DOE	NA	1995	2015
NSLDS Lender Manifest	The format Lenders use to provide data to Guarantors	P	COBOL/MVS	os390		VSAM,QSAM	NCHELP	PGS	1995	2015

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HELMS	Lender Servicing System	P	COBOL / .Net	Windows		VSAM, SQL	5280	PGS, CORE	2010	2015
HELMSNet	Lending Servicing System Web Frontend	P	.Net	Windows		SQL	5280	PGS, HELMS	2010	2015
SLND PGS web system	Guarantor system	I	JAVA	Linux		DB400	Internal	ACH, ALS, ITI, SA, PGP, Tumbleweed	2004	2015
Postoffice	Software utility used to route electronic files	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Secret Agent	Software utility used to encrypt files	P	C/C++	Linux		NA	Information Security Corp (ISC)	PGS	2000	2015
PGP	Encryption application	P	C	Linux		NA	PGP	PGS		
FAFSA	Application used to determine financial aid eligibility	P	NA	Windows		NA	DOE	NA		
NSLDS Reporting PC process	Software utility used to edit file	P	NA	Windows		NA	DOE	PGS		2015
TOPS Pre-Certification and Certification	Software utility used to generate file for ??	I	JAVA	Linux		DB400	Internal	PGS		2015
Credit Bureau reporting	Software utility used to generate Metro II file format	I	JAVA	Linux		DB400	Internal	PGS		2015
File Transfer Protocol (FTP)	Software utility used to transfer files to other systems	P						PGS		
Job Scheduler	Software utility used to transfer files to run system jobs	I	JAVA	Linux		DB400	Internal	PGS		
Correspondence	Software utility used to generate customer correspondence	I	JAVA	Linux		DB400	Internal	PGS		
DAA processing	Software utility used to generate collection records	I	JAVA	Linux		DB400	Internal	PGS		
NSLDS Reporting Web process	Application used to create electronic reporting file	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Borrower Access	Web application that allows borrowers access to their SLND data	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
New Loan Entry	Web applications used to create Student Loans	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
CFAO Access	Web application that allows CFAO access to SLND data	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Lender Access	Web application that allows Lender access to SLND data	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Address Book	Web application used to store Guarantor, Lender, School etc information	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Secret Agent Encryption	Software utility used to encrypt electronic files	P		Windows			?	PGS	2004	2015
PGP Encryption	Software utility used to encrypt electronic files	P		Windows			?	PGS	2006	2015
Extract Process	Web application used to extract and load Lender data to the Web	I	JAVA	Windows		DB400	I	PGS	2004	2015
New Loan Guarantee	Web applications used to Guarantee Student Loans	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
CAM Process	Commonline Account Maintenance	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
CCTS Process	Change Send Transaction	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Postclaim Process	Web application used to process Guarantor Postclaim Accounts	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Parameters	Web application used to process Guarantor applications	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Borrower Online Payments	Web application used by borrowers to enter payments	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
CSR Access	Web application used by Guarantor CSRs	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
CSR Online Payments	Web application used by CSRs to enter payments	I	JAVA	Linux		DB400	Internal	PGS	2004	2015

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Enrollment Status Update	Web application used by CSRs to update student enrollment information	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Clearinghouse Process	Software utility used to process student enrollment electronic file	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
SSCR Process	Software utility used to process student enrollment electronic file	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Claim Process	Web application used by CSRs to update claim information	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Postclaim Process	Web application used by CSRs to update Post-claim information	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
ToPS	Web application used by CSRs to update Treasury Offset information	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
ToPS Weekly Update	Web application used by CSRs to update Treasury Offset Weekly payment	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
NSLDS Lender Manifest	Software utility used by the Guarantor to update Lender data	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
NDNH Reporting	Software utility used by the Guarantor to update Demographics from the ND New Hire electronic file	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Automated Credit Check	Software utility used by the Lender NL process to validate borrower credit	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
STAN E_sign	Software utility used by the Lender NL process to generate electronic signature for Federal loans	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Pinless E_sign	Software utility used by the Lender NL process to generate electronic signature for Alternative loans	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Online Collections	Web application used by Guarantor CSRs to manage loans in collections	I	JAVA	Linux		DB400	Internal	PGS	2004	2015
Data Prep Software	Windows application for NSLDS files	P		Windows			?	PGS	2004	2015
Human Resources										
Human Resource - ITD PeopleSoft	Benefit, classification and compensation application	P	NA			NA	Oracle	NA	2003	2015
Halogen	Performance Management Software	P	NA	Windows		NA	Halogen Software	NA		
Halogen	E_Learning Software	P	NA	Windows		NA	Halogen Software	NA		
Halogen	E_Succession Software	P	NA	Windows		NA	Halogen Software	NA		
Information Technology Services										
Rational Application Developer	Developer application tool	P	NA	Windows		NA	IBM	NA	2003	2015
Websphere Application Server	Application used to create and manage websites	P	NA	Linux		NA	IBM	PGS, Pipeline, ITI		
DB2 Connect	Relational DB software	P	NA	Windows		NA	IBM	NA		
Silktest and Issue Manager	Application used for automating testing software	P	NA	Windows		NA	Borland	NA		
TextPad	text editor	P	NA	Windows		NA	TextPad	NA		
WinZip	Compression utility	P	NA	Windows		NA	WinZip	NA		
Time Keeping	time tracking software	I	NA		MS SQL		Internal		2009	
ITSM	ITD's Incident/Help Desk software						ITD			
GoToMeeting	web service to connect to customer's pc	P	NA			NA	GoToMeeting	NA	2008	
Infrastructure Software										
Windows XP, Vista, 2000 and 2003 Standard Server	Desktop and server operating systems	P	NA	Windows		NA	Microsoft	NA		

System	Business Purpose	In-House/ Purchased	Development Language	Operating System	Database	File Structure	Vendor/ Internal	Interfaces	Est. Year Put in Service	Est. Year Life Expectancy
Red Hat Enterprise Linux	Server operating system	P	NA	Linux		NA	Red Hat	PGS		
Microsoft SQL 2000 and 2005	Server database software	P	NA	Windows		NA	Microsoft	ITI		
IIS Server	Microsoft Web Server	P	NA	Windows		NA	Microsoft	ITI		
Metaviewer	COLD and image retrieval software	P	NA	Windows	MS SQL	NA	Metafile	SLND, PGS		
Metafile MVScan	Image scanning software	P	NA	Windows	MS SQL	NA	Metafile	SLND, PGS		
Enterprise	Image workflow software	P	NA	Windows	MS SQL	NA	Metafile	NA		
FormFlow	Electronic form software	P	NA	Windows		NA		NA	1995	2015
Liquid Office	Electronic form software	P	NA	Windows		NA	Cardiff	NA		
Microsoft Publisher	Create publication documents	P	NA	Windows		NA	Microsoft	NA	1998	2015
Microsoft Project	Project management software	P	NA	Windows		NA	Microsoft	NA	1998	2015
Microsoft Access	Desktop database software	P	NA	Windows		NA	Microsoft	NA	1998	2015
Microsoft Office	Word, Excel, PowerPoint, and Outlook	P	NA	Windows		NA	Microsoft	NA	1998	2015
Microsoft Visio	Create diagrams	P	NA	Windows		NA	Microsoft	NA	1998	2015
Camtasia	Screen recorder for training and presentations	P	NA	Windows		NA	TechSmith	NA		
Jreport	report writer	P	NA	Windows		NA	Jinfonet	PGS, Metafile		
Cognos	report writer	P	NA	Windows		NA	Cognos / IBM	PGS, Metafile, Director, ITI		
IVR	Interactive Voice Recorder	P	NA			NA		PGS, ITI		
VPN	Virtual Private Network	P	NA			NA		NA		
Advantage Credit bureau	Credit checks	P	NA	Windows		NA		PGS, ALS, ITI		
Eoscar - Credit reporting	Credit checks	P	NA	Windows		NA		NA		
Eport Credit bureau	Credit checks	P	NA	Windows		NA		ITI		
Adobe Suites	Document publishing software	P	NA	Windows		NA	Adobe	NA		
ITI Premier Navigator	ITI core banking software	P	NA	Windows		NA	Fiserv	Connect3, Platform, Insight, FMS		
ITI ViewPoint	ITI report writer	P	NA	Windows	MS SQL	NA	Fiserv	Director		
ITI PowerPlay/Transformer	ITI report writer	P	NA	Windows	MS SQL	NA	Fiserv	Monthly ITI dbase		
ITI Director/Web Director	COLD and image retrieval software	P	NA	Windows	MS SQL	NA	Fiserv	NA		
File Retention	Purge images from storage	P	NA	Windows	MS SQL	NA	Fiserv	NA		
ITI Focus	WSDL - used for ACH loan payments						Fiserv			
ITI Eport	Web forms						Fiserv			
ITI Impromptu	ITI report writer for interface files						Fiserv			
Symantec Backup Exec	Server backup software	P	NA	Windows	MS SQL	NA	Symantec	NA		
Symantec Antivirus	Antivirus software	P	NA	Windows		NA	Symantec	NA		
BrightStor ARCserve	Server backup software	P	NA	Windows & Linux		NA	BrightStor	NA		
Altiris	Remote desktop and pc imaging software	P	NA	Windows		NA	Symantec	NA		
Serv-U FTP	FTP software	P	NA	Windows		NA	Serv-U	NA		
Data Integrator	Pervasive product for Metaviewer conversion	P	NA	Windows		NA	Pervasive		2009	
Double-Take	DR Solution for ITI Core products	P	NA	Windows		NA	Sunbelt (reseller)		2006	
Tumbleweed	Secure image transfer between BND and other entities	P	NA	Linux		NA	Tumbleweed	NA		
RPM	3rd party utiltiy to print jobs to Director	P	NA			NA	Brooks	Mainframe, Dela, Metaviewer	2005	
Automate	automation utility	P	NA	Windows		NA	Network Automation	Fraud?	2009	